

is his critique of Darwinism; it has stood the test of time and is now admitted as justified, "and Darwinism, for scientific circles at least, is at its last gasp. Weismann, the toughest champion of Darwinism, can now write over all his works devoted to the rescue of the selection-principle, '*In vanum laboravimus.*'" These are brave words, but the game is "bluff."

A second "permanent truth" expressed by von K  lliker was that organic evolution can only have come about through internal factors, for von K  lliker is one of the many who have groped after "an unknown factor," a "phyletische Lebenskraft." It has often seemed like a clue, this idea of an internal tendency to progress, but it has not as yet led us anywhere; and we relapse from obscure talk about "bathmism" into an   tiology like Topsy's "specks I growed." There may be some with the bad taste to prefer Weismann's "germinal selection."

A third "permanent truth" in von K  lliker's position is that "he regarded all theories of descent, including his own, as having only the status of probabilities," and this is to appraise them rightly. In other words, evolution-theories were to him, as to most clear-headed people, simply conceptual formul  e more or less justified by their success in fitting the facts. Here, at least, those who regard von K  lliker's heresies as expressive of a useful scientific method and those who denounce them as errors of judgment, those who stand by the selection-idea and those who think that it has been literally worked to death, may find a provisional peace, until they begin again to try if they cannot get "any forrarder."

J. A. T.

#### OUR BOOK SHELF.

*A Treatise on Medical Jurisprudence.* By G. V. Poore, M.D., F.R.C.P., Professor of the Principles and Practice of Medicine, University College, London. Pp. xxiv+533. Eighteen illustrations. (London: John Murray, 1901.)

THE book before us consists essentially of a series of lectures delivered by Dr. Poore at University College during the time when he occupied the chair of medical jurisprudence in that institution; now that he has passed to another sphere of duties, it is well that his labours as a teacher of this most important subject should endure in the concrete form of a manual. The lectures have been freely edited by himself, and doubtless touched up by others, but in spite of this they remain still essentially lectures, delivered in a pleasant colloquial style; if from the point of view of highly systematised contents, something by this method has been lost, something has also been gained, in that the volume before us may certainly be designated one of the most readable which it has ever fallen to our lot to peruse.

To turn from the manner of the book to its matter, it is quite impossible in a short notice to do adequate justice to the mass of fact which it contains. The book is not very fully indexed, and to get an adequate idea of its contents the table of contents itself must be read. This consists of a series of detailed chapter headings which are repeated throughout the book at each chapter.

*Inter alia* we would draw special attention to Chapter ii., which deals with the legal relations of the medical profession. The subject-matter of this chapter, as in many others throughout the book, is elucidated by illustrative cases culled from the records of the Law Courts. Amongst these cases we may mention the Tichborne, Palmer, Lamson and Maybrick cases, each of which is fully de-

scribed under the subject which renders them of permanent interest to the medical jurist. With regard to the toxicological part of the subject, the author adopts the wise method of only dealing with the symptoms produced by, and the detection of, those poisons which have actually been used criminally. An interesting chapter on food-poisoning is, we venture to think, not strictly within the scope of the work. The criminal of to-day is perhaps turning his attention to ptomaines, and it may be that the criminal of the near future will actually employ them. It is only to be hoped that modern chemistry will be equal to the task of their identification. A very useful chapter for the medical practitioner is the one upon insanity, and the one immediately following, upon the legal relations of the insane. In these two chapters he will find full information with regard to what is very often a puzzling subject, viz. what to do and how to do it when one is suddenly called to a case which obviously requires restraint. Is it to be wondered at that the busy medical man has sometimes to be censured for not complying with the law when, as Dr. Poore tersely puts it, the law in question contains more than three hundred sections and clauses, and weighs half a pound?

The volume concludes with eleven appendices upon various subjects of importance to medical jurists. Amongst these may be mentioned a most interesting appendix (illustrated) by Dr. J. G. Garson upon "The metric and finger-print identification of criminals as carried out at New Scotland Yard."

We may close our remarks by saying that Dr. Poore's book deserves, and will surely have, a very wide circulation, supplementing rather than replacing the more systematised and voluminous works upon this subject.

F. W. T.

*Ueber Museen des Ostens der Vereinigten Staaten von Amerika; Reisestudien.* By A. B. Meyer. Part ii. Illustrated. (Berlin, 1901.)

IN this fasciculus the learned Director of the Royal Zoological and Ethnographical Museum of Dresden concludes his interesting account of the museums and libraries of the United States visited during his recent tour. Here we may avail ourselves of the opportunity of correcting a misrepresentation of the author's opinions which unfortunately occurs in our notice of the first portion of his work. Instead of stating that Americans are ahead of us in the matter of museum fittings, Dr. Meyer awards the preeminence in this respect to European institutions, although he is fain to confess that as regards libraries and library installations we are not abreast of America.

In the present part Dr. Meyer discusses the chief public institutions of Chicago connected with art, literature and science, namely, the Field Columbian Museum, the Academy of Sciences, the Historical Society, the Art Institute, the John Crerar, the Newberry, and the Chicago Public Libraries and the University. The Field Columbian Museum, which was opened in August 1893, during the Chicago International Exhibition, under the title of the Columbian Museum of Chicago, owes its existence to private liberality, and in May 1894 was renamed in honour of its founder, Mr. M. Field, of the firm of Marshall Field and Co. On Saturdays and Sundays the Museum is open free to the public, but on other days a small admission fee is charged, although the scholars attending elementary and secondary schools are always admitted without charge. Dr. Meyer furnishes his readers with a plan of the ground floor and another of the galleries, and discusses the general arrangement of the rich collections and the mode of cataloguing. At the conclusion of his article he expresses himself dissatisfied with the building, which he considers inadequate to the contents, urging that if this were remodelled the Museum ought to take rank among the first in the world.

Of the other institutions named, Dr. Meyer considers that the small museum of the Academy of Sciences is a model of its kind; and that the Art Museum is in many respects remarkable, and, like the other institutions, worthy the best attention of all interested in such matters. The Newberry and John Crerar Libraries, which are for reference only, display many features of their own, and will in the near future be of the highest importance as the scientific libraries of the Central United States. The Chicago Public Library, on the other hand, is a circulating one, which lends out, according to the author, millions more volumes than any other institution in the world; it is, in fact, a unique institution. As to the University, which is described in considerable detail, Dr. Meyer has no doubt that it is assured of a great future, the progress it has made and the influence it exerts, after an existence of only a decade, being little less than marvellous.

To all practically interested in museum and library work and progress, Dr. Meyer's observations and criticisms should be invaluable. R. L.

*The Mechanical Triumphs of the Ancient Egyptians.*

By Commander F. M. Barber, U.S. Navy. Pp. x + 123. (London: Kegan Paul and Co., Ltd., 1900.) Price 3s. 6d.

THE writer is a well-read sailor, who has devoted much time to answering as plausibly as possible the common query of travellers, "How did the Egyptians transport such great stones from their quarries as the stones for the pyramids, the colossi and obelisks, and lift them to their present positions?"

He discusses the Egyptian knowledge of the mechanical powers, the capstan and windlass known in the first three dynasties, the single pulley B.C. 3500, the inclined plane very early, the screw and the Spanish windlass also early.

He thinks that the heavy stones of the lower parts of the pyramids were brought on rafts by water, then up long inclined planes of gentle slope to their actual positions. The lighter stones of the upper parts may have been lifted, possibly also the casing stones, by levers, but he finds reason to believe that the screw-jack was in common use for this and other purposes. He describes the quarrying, the carrying and polishing of very hard stones with such tools as the Egyptians possessed; he is much at home in his discussion of the shapes and strength of boats used for conveying two obelisks at a time and how they were towed, and he compares the modern methods of lifting obelisks into position with his plausible account of how the ancients performed such operations.

*Cours de Mathématiques à l'Usage des Élèves-Architectes et Ingénieurs Professé à l'École des Beaux-Arts.* Par Carlo Bourlet. Pp. iii + 244. (Paris: C. Naud, 1902.) Price fr. 8.

THIS is an elementary treatise on what is often called higher mathematics, the parts of which are taken up in the following order:—Differential calculus; analytical geometry of two dimensions with calculus applications; integral calculus; three-dimensional geometry. It seems to be made up of the most elementary parts of three or four treatises, but there is nothing new in the treatment. One might have expected the author to illustrate the well-known rules of differentiation by showing how applicable they are to the problems of the builder and engineer, to have greatly shortened the proofs and lessened the number of rules for differentiation, and so forth; but we here find practically nothing of the kind. The conic sections are still the important curves; the student gets rules enough for the most elaborate differentiation and integration and, in fact, enters in the most orthodox way upon a course of pure mathematics; but this book is in no way written to satisfy

the special needs of the architect or engineer. But the author is to be praised for teaching the calculus, in however dry a manner, before coordinate geometry. We wish he had used the calculus to help in teaching coordinate geometry, but he only makes a combination after he has taught both subjects.

*Physical Determinations.* By W. R. Kelsey, B.Sc., A.I.E.E. Pp. xii + 316. (London: Edward Arnold, no date.) Price 4s. 6d.

THIS book contains, in a space of 310 pages, 185 sections each of which deals with generally one and sometimes more experiments. The subject-matter spreads over the whole range of physics. It is consequently packed tightly; and so the author has had to omit details, but he has endeavoured to give sufficient information to enable a class to start work without waiting for individual instruction from the demonstrator. It is claimed that the book contains most of the exercises which have been set at the London Intermediate and B.Sc. examinations.

The exercises are of very variable degree of difficulty and are not graded, so that a teacher adopting this book for elementary classes will have to make a careful selection. One use of the book will be to look up the whole subject the night before an examination. S. S.

*Proceedings of the Aristotelian Society.* New Series. Vol. i. Pp. 239. (London: Williams and Norgate, 1901.)

THE existence of the Aristotelian Society illustrates one of the best features of English philosophical study, its freedom from the tendency, often so strongly marked in continental countries, to organise itself into little schools, each with some master, whose decisions are unquestionable, and his band of unquestioning disciples. The present volume, like its predecessors, is pleasingly marked by the tone of free inquiry and unprejudiced discussion natural to a society in which adherents of the most various philosophical principles attempt to make themselves reciprocally intelligible. The contents of the book include contributions to most departments of philosophy, except that there is no paper dealing directly with ethics. Among the essays concerned with metaphysics the most important are the three in which Dr. Shadworth Hodgson, the Nestor of the society, defends his well-known views on causation, substance, and the nature of the conscious subject of psychology, and the discussion of identity by Mr. G. E. Moore. Of the papers on other subjects perhaps the most attractive is Mr. Sturt's on "Art and Personality." Mr. Beneke's discussion of the "Aspect Theory of the Relation of Mind to Body" is suggestive, though impaired by the writer's voluntary abstention from metaphysical thoroughness. A. E. T.

*The Play of Man.* By Karl Groos. Translated by Elizabeth L. Baldwin. Pp. ix + 412. (London: Heinemann, 1901.)

PROF. GROOS'S work, "Der Spiel des Menschen," has already been noticed in this column, in connection with the appearance of the German original. It is therefore superfluous to say more than that the work, both for wealth of information, soundness of judgment and charm of literary style, is in every way worthy of its earlier companion study of "The Play of Animals." Apart from its purely psychological interest, the book has a serious value for the pedagogue who desires to form his own judgment as to the educational effects of games and the uses and dangers of the play-impulse. It is to be hoped that so good a book will have in its English dress the deserved success already attained in this country and America by "The Play of Animals." The translator has done her work well, and Prof. Baldwin contributes a preface and a few footnotes.